

Amendments to the Drawings

The attached sheets of drawings include changes to Figs. 19, 20A and 20B. These sheets replace the original sheets including Figs. 19, 20A and 20B. Figs. 19, 20A and 20B have been amended to include "Prior Art" label.

Attachment: Replacement Sheets

REMARKS

I. Introduction

At the time of the Office Action dated April 20, 2006, claims 1-12 were pending in this application. In this Amendment, claims 2, 11 and 12 have been amended, and claims 1, 9 and 10 have been canceled. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the written description of the specification.

II. Drawings

The Examiner pointed out that Figs. 19, 20A and 20B should be designated by a legend such as --Prior Art--. In response, Figs. 19, 20A and 20B have been amended to include the "Prior Art" label. Accordingly, withdrawal of the objections to the drawings is solicited.

III. The Rejection of Claims 1 and 9 under 35 U.S.C. §112, First Paragraph

Claims 1 and 9 have been rejected under 35 U.S.C. §112, first paragraph, because those claims are single means claims. Applicant notes that this rejection has been rendered moot by cancellation of claims 1 and 9.

IV. The Rejection of Claims 1-12 under 35 U.S.C. §103(a)

Applicant first notes that the rejection of claims 1, 9 and 10 under 35 U.S.C. §103(a) has been rendered moot by cancellation of those claims (see, paragraphs 3, 11 and 12 of the Office Action).

Claims 2, 11 and 12

Claims 2, 11 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant Admitted Prior Art (“AAPA”) in view of Amini et al. (see, paragraphs 4 and 13 of the Office Action).

With respect to claim 2, the Examiner admitted that the AAPA does not teach “transfer interval storing means for storing an interval between destination addresses for one-word data.” However, the Examiner applied Amini et al., and asserted that the reference teaches the missing feature of the AAPA. The Examiner, then, concluded that it would have been obvious to modify the AAPA based on the teachings of Amini et al. to arrive at the claimed invention.

In response, Applicant submits that the applied combination of the AAPA and Amini et al. does not teach a data control system including all the limitations recited in claim 2, as amended. Specifically, the references do not teach, among other things, the following limitations recited in claim 2:

transfer interval storing means for storing an interval between destination addresses of a plurality of one-word data which is included in the data which are to be transferred, the destination addresses being equally-separated with the interval; and

bus cycle controlling means for controlling the data transfer such that, during a burst transfer, in a single bus cycle, a write control line of the bus is placed in a write-enabled state for a one-word data transfer period and is placed in a write-disabled state for an (N-1) words data transfer period periodically, wherein N is the number stored in the transfer interval storing means, and that data including a number of words which is equal to the number stored in the transferred-word number storing means is transferred while the write control line is in the write-enabled state.

According to the present invention, by placing the write control line of the bus in a write-enabled state/write-disabled state repeatedly, data including a plurality of words can be

transferred to addresses which are equally-separated with an interval on a one-word by one-word basis within a single bus cycle.

The Examiner specifically asserted that

Amini teaches a data transfer system and method comprising the C/BE control signal providing interval for writing between destination addresses for one-word data, wherein the writing interval implement the write-enable state (clock 3 and 6 of Fig. 2) and the write disable state (clock 1-2, 4-5 and 7 of Fig. 2) (Fig. 2 and col. 7, l. 38 to col. 9, l. 14), wherein it would be obvious to provide the storing of the writing interval in a register.

Page 5, the second full paragraph of the Office Action (emphasis original). Applicant first emphasizes that Amini neither discloses nor suggests performing burst transfer of data including a plurality of words to addresses which are equally-separated with an interval. Amini et al. simply mentions the “destination addresses,” but is silent on whether they are equally separated with an interval.

According to Fig. 2 of Amini et al. cited by the Examiner, bus cycles occurring in the clock 2 and clock 5 respectively are independent of each other. Moreover, Amini et al. in Fig. 2 does not teach transferring data including a plurality of words to addresses which are equally-separated with an interval on a one-word by one-word basis within a single bus cycle. In addition, the specification of this application describes that the two pieces of data are transferred to two separate addresses by performing a single transfer operation twice in the AAPA (see, page 2, lines 6-7 of the specification). Therefore, even if the combination of the AAPA and Amini et al. are assumed to be proper for the sake of this response, data including a plurality of words may be transferred to addresses which are equally-separated with an interval on a one-word by one-word basis within a **plurality** of bus cycles, but **cannot** be transferred within a **single** bus cycle.

Based on the foregoing, it is apparent that the applied combination of the AAPA and Amini et al. does not teach, at minimum, the claimed transfer interval storing means and bus

cycle controlling means, recited in claim 2. Accordingly, the applied combination does not teach a data transfer control system including all the limitations recited in claim 2 within the meaning of 35 U.S.C. §103(a). Applicant also notes that the above discussion is applicable to claims 11 and 12.

Claims 3 and 7

Claims 3 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA and Amini et al., and further in view of Sheafor et al. and Kreifels (see, paragraph 5 of the Office Action).

Applicant submits that Sheafor et al. and Kreifels do not teach the transfer interval storing means and bus cycle controlling means, recited in independent claim 2, and thus, do not cure the deficiencies of the applied combination of the AAPA and Amini et al. Accordingly, claims 3 and 7 are patentably distinguishable over the AAPA, Amini et al., Sheafor et al. and Kreifels, at least because the claims respectively include all the limitations recited in independent claim 2.

Claim 4

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA and Amini et al., and further in view of Fabre (see, paragraph 7 of the Office Action).

Applicant submits that Fabre does not teach the transfer interval storing means and bus cycle controlling means, recited in independent claim 2, and thus, do not cure the deficiencies of the applied combination of the AAPA and Amini et al. Accordingly, claim 4 is patentably distinguishable over the AAPA, Amini et al. and Fabre, at least because the claim includes all the limitations recited in independent claim 2.

Claim 5

Claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA, Amini et al., Sheafor et al. and Kreifels, and further in view of Fabre (see, paragraph 8 of the Office Action).

Applicant submits that Kreifels and Fabre do not teach the transfer interval storing means and bus cycle controlling means, recited in independent claim 2, and thus, do not cure the deficiencies of the applied combination of the AAPA and Amini et al. Accordingly, claim 5 is patentably distinguishable over the AAPA, Amini et al., Kreifels and Fabre, at least because the claim includes all the limitations recited in independent claim 2.

Claim 6

Claim 6 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA and Amini et al., and further in view of Kreifels (see, paragraph 9 of the Office Action).

Applicant submits that Kreifels does not teach the transfer interval storing means and bus cycle controlling means, recited in independent claim 2, and thus, do not cure the deficiencies of the applied combination of the AAPA and Amini et al. Accordingly, claim 6 is patentably distinguishable over the AAPA, Amini et al. and Kreifels, at least because the claim includes all the limitations recited in independent claim 2.

Claim 8

Claim 8 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA, Amini et al. and Fabre, and further in view of Kreifels (see, paragraph 10 of the Office Action).

Applicant submits that Fabre and Kreifels do not teach the transfer interval storing means and bus cycle controlling means, recited in independent claim 2, and thus, do not cure the

deficiencies of the applied combination of the AAPA and Amini et al. Accordingly, claim 8 is patentably distinguishable over the AAPA, Amini et al., Fabre and Kreifels, at least because the claim includes all the limitations recited in independent claim 2.

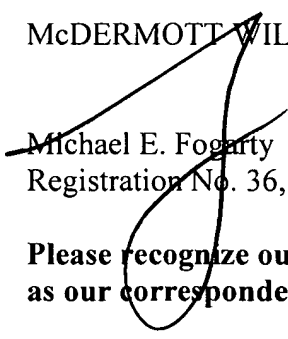
V. Conclusion

It should, therefore, be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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